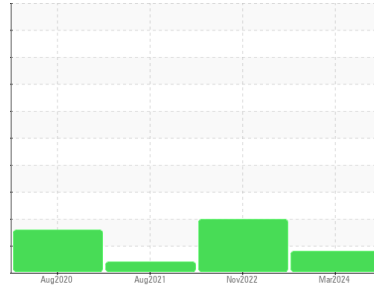




OIL ANALYSIS REPORT

Sample Rating Trend



VISCOSITY



Machine Id
5773749 (S/N 2338)
 Component
Compressor
 Fluid
KAESER SIGMA (OEM) M-460 (--- GAL)

DIAGNOSIS

▲ Recommendation

No corrective action is recommended at this time. Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor. We were unable to perform a particle count due to a high concentration of particles present in this sample.

Wear

All component wear rates are normal.

▲ Contamination

Moderate concentration of visible dirt/debris present in the oil.

● Fluid Condition

The oil viscosity is higher than normal. The AN level is acceptable for this fluid.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number	Client Info			KCPA014864	KCP47870D	KCP36950
Sample Date	Client Info			15 Mar 2024	14 Nov 2022	24 Aug 2021
Machine Age	hrs	Client Info		18453	16002	11337
Oil Age	hrs	Client Info		3000	3000	3000
Oil Changed	Client Info			Changed	Changed	Changed
Sample Status				ABNORMAL	ATTENTION	ABNORMAL

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>50	4	<1	<1
Chromium	ppm	ASTM D5185m	>10	<1	0	0
Nickel	ppm	ASTM D5185m	>3	0	0	0
Titanium	ppm	ASTM D5185m	>3	<1	0	0
Silver	ppm	ASTM D5185m	>2	<1	0	0
Aluminum	ppm	ASTM D5185m	>10	2	<1	0
Lead	ppm	ASTM D5185m	>10	0	<1	0
Copper	ppm	ASTM D5185m	>50	11	5	8
Tin	ppm	ASTM D5185m	>10	<1	<1	<1
Antimony	ppm	ASTM D5185m		---	---	0
Vanadium	ppm	ASTM D5185m		<1	0	0
Cadmium	ppm	ASTM D5185m		0	0	0

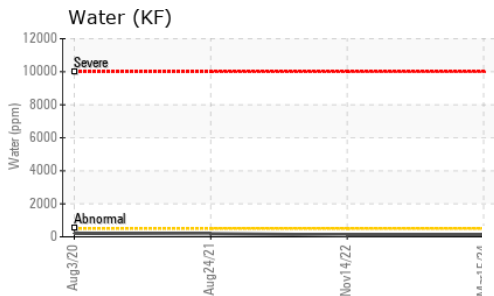
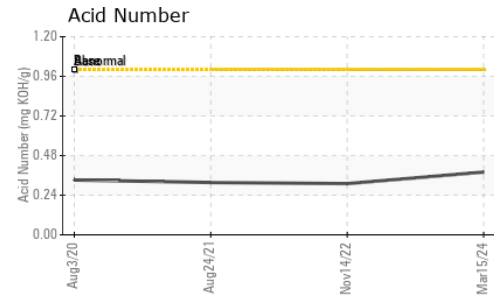
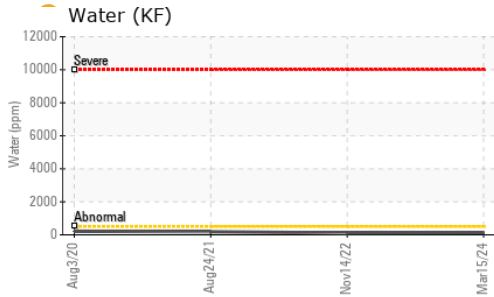
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	0	0	0	26
Barium	ppm	ASTM D5185m	90	5	0	0
Molybdenum	ppm	ASTM D5185m	0	0	<1	0
Manganese	ppm	ASTM D5185m		0	0	0
Magnesium	ppm	ASTM D5185m	100	36	28	28
Calcium	ppm	ASTM D5185m	0	4	0	0
Phosphorus	ppm	ASTM D5185m	0	<1	8	<1
Zinc	ppm	ASTM D5185m	0	27	32	43
Sulfur	ppm	ASTM D5185m	23500	20367	17692	17557

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>25	0	1	5
Sodium	ppm	ASTM D5185m		18	9	14
Potassium	ppm	ASTM D5185m	>20	4	<1	2
Water	%	ASTM D6304	>0.05	0.013	0.011	0.018
ppm Water	ppm	ASTM D6304	>500	132	110.0	187.7

FLUID CLEANLINESS		method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647		---	13688	---
Particles >6µm		ASTM D7647	>1300	---	● 2334	---
Particles >14µm		ASTM D7647	>80	---	● 93	---
Particles >21µm		ASTM D7647	>20	---	● 22	---
Particles >38µm		ASTM D7647	>4	---	0	---
Particles >71µm		ASTM D7647	>3	---	0	---
Oil Cleanliness		ISO 4406 (c)	>--/17/13	---	● 21/18/14	---

FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045	1.0	0.38	0.31	0.317

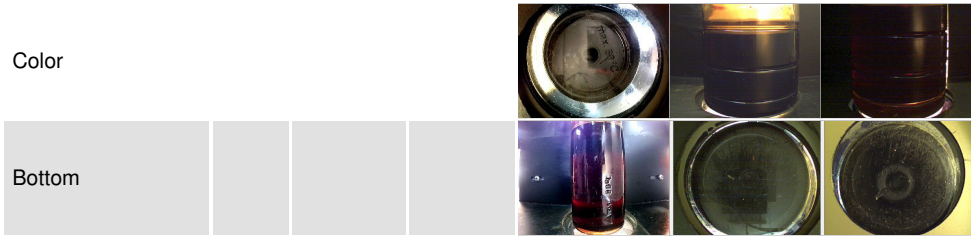
OIL ANALYSIS REPORT



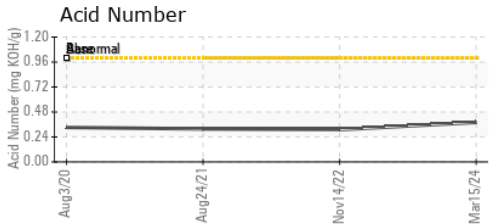
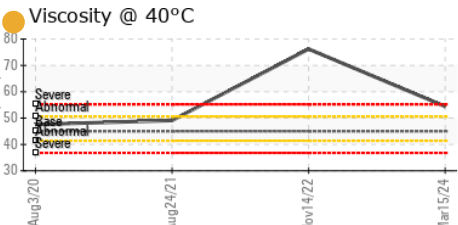
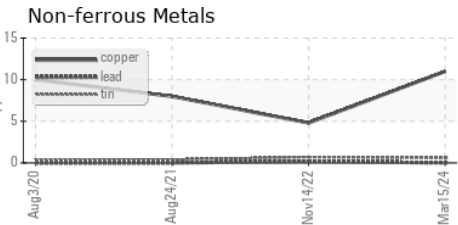
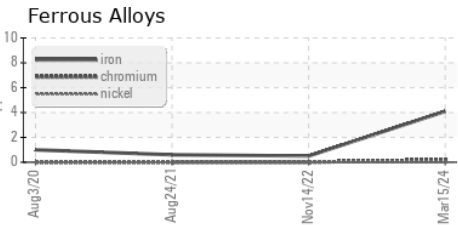
VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	▲ MODER	NONE	▲ MODER
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.05	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG

FLUID PROPERTIES	method	limit/base	current	history1	history2	
Visc @ 40°C	cSt	ASTM D445	45	● 54.4	● 76.21	49.1

SAMPLE IMAGES	method	limit/base	current	history1	history2
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GRAPHS



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : KCPA014864 **Received** : 08 Apr 2024
Lab Number : 06142264 **Tested** : 11 Apr 2024
Unique Number : 10967072 **Diagnosed** : 11 Apr 2024 - Don Baldrige
Test Package : IND 2 (Additional Tests: KF, PrtCount)

CALIBER PRODUCTS
 1500 CONTINENTAL BLVD
 CHARLOTTE, NC
 US 28273
 Contact: WILLIE DAVIS
 willie.davis@calibercustomproducts.com

To discuss this sample report, contact Customer Service at 1-800-237-1369.

* - Denotes test methods that are outside of the ISO 17025 scope of accreditation.

Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)